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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Christopher J. Lord

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EXAMINER

JONES, HEATHER RAE

ART UNIT

PAPER NUMBER

2621

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/757,300	Applicant(s) LORD ET AL.	
	Examiner HEATHER R. JONES	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 9-25 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 23 is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-12, 16 and 18-21 is/are rejected.
- 7) ☒ Claim(s) 13-15, 17, 22, 24 and 25 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, filed January 16, 2009, with respect to the rejection(s) of claim(s) 1-7 and 9-25 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of a newly found prior art reference.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-10 rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1-7, 9, and 10 are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. Supreme Court precedent¹ and recent Federal Circuit decisions² indicate that a statutory "process" under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing. While the instant claim recites a series of steps or acts to be performed, the claim neither transforms underlying subject matter nor is positively tied to another statutory category that accomplishes the claimed method steps, and therefore does not qualify as

¹ *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876).

² *In re Bilski*, 88 USPQ2d 1385 (Fed. Cir. 2008).

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a statutory process. For example the method including steps of maintaining, comparing, and annotating is of sufficient breadth that it would be reasonably interpreted as a series of steps completely performed mentally, verbally or without a machine. The Applicant has provided no explicit and deliberate definitions of "maintaining", "comparing" or "annotating" to limit the steps to the electronic form of the method, and the claim language itself is sufficiently broad to read on a SPE being to mentally stepping through the §101 analysis, recalling *In re Bilski*.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2, 4, 5, 7, 9-12, 16, and 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ross et al. (U.S. Patent 5,880,775) in view of Chiba et al. (U.S. Patent 5,614,960).

Regarding claim 1, Ross discloses a method comprising: maintaining a current state of auxiliary information regarding a first frame of a sequence of video frames in storage in a local memory (Fig. 2; col. 3, lines 9-30 – the average pixel value is stored in the corresponding register); comparing the stored current state of auxiliary information with auxiliary information regarding a later current video frame of the sequence of video frames to determine differential information (Fig. 2; col. 3, lines 31-39); Ross fails to explicitly disclose that the sequence of

video frames are encoded as a video bit stream having video frame data for each respective video frame of the sequence of video frames as well as annotating the differential information to the video bit stream as an annotation to the video frame data for the current frame only if the differential information indicates a change from the current state of the auxiliary information.

Referring to the Chiba et al. reference, Chiba et al. discloses a method wherein the sequence of video frames are encoded as a video bit stream having video frame data for each respective video frame of the sequence of video frames (Figs. 5-7 - encoding steps) and detecting a scene change as well as annotating the differential information to the video bit stream as an annotation to the video frame data for the current frame only if the differential information indicates a change from the current state of the auxiliary information (Figs. 64 and 65; col. 41, lines 14-19 and lines 40-55).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have encoded the bitstream and to annotate the difference in images (scene changes) into the video bit stream as disclosed by Chiba et al. in the method disclosed by Ross in order to easily discriminate a frame that constitutes a scene change against a normal frame.

Regarding claim **2**, Ross in view of Chiba et al. discloses all the limitations as previously discussed with respect to claim 1 including that the current state of auxiliary information indicates the latest encoded information (Ross: Fig. 2; col. 3, lines 10-30).

Regarding claim **4**, Ross in view of Chiba et al. discloses all the limitations as previously discussed with respect to claim 1 including that the auxiliary information comprises video processing information regarding video frames (Ross: Fig. 2; col. 3, lines 10-30).

Regarding claim **5**, Ross in view of Chiba et al. discloses all the limitations as previously discussed with respect to claim 1 as well as further comprising encoding the differential information before annotating the differential information (Chiba et al.: Figs. 5-7, 64, and 65; col. 41, lines 14-19 and lines 40-55 - the difference information is encoded).

Regarding claim **7**, Ross in view of Chiba et al. discloses all the limitations as previously discussed with respect to claim 1 including that annotating the differential information comprises extending the video bit stream format to include the differential information (Chiba et al.: Figs. 5-7, 64, and 65; col. 41, lines 14-19 and lines 40-55; Fig. 65 displays more information being annotated to the video bit stream thereby extending the video bit stream).

Regarding claim **9**, Ross in view of Chiba et al. discloses all the limitations as previously discussed with respect to claim 1 as well as the method further comprising gathering the video information regarding the current video frame (Ross: Fig. 2; col. 3, lines 10-30).

Regarding claim **10**, Ross in view of Chiba et al. discloses all the limitations as previously discussed with respect to claims 1 and 9 including that the differential information comprises the difference between the current state of

the auxiliary information and the gathered information (Ross: Fig. 2; col. 3, lines 10-39; Chiba et al.: Figs. 5-7, 64, and 65; col. 41, lines 14-19 and lines 40-55).

Regarding claims **11** and **12**, these are machine-readable medium claims corresponding to the method claims 1 and 2. Therefore, claims 11 and 12 are analyzed and rejected as previously discussed with respect to claims 1 and 2.

Regarding claims **16** and **18-21**, these are apparatus claims corresponding to the method claims 1, 2, 4, and 5. Therefore, claims 16 and 18-21 are analyzed and rejected as previously discussed with respect to claims 1, 2, 4, and 5.

Allowable Subject Matter

5. Claims 13-15, 17, 22, 24, and 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter: Prior art fails to teach or fairly suggest a method, recording medium, or an apparatus comprising:

- a. Wherein the auxiliary information comprises additional non-visual information regarding video frames (claims 13 and 17).
- b. Wherein the encoded differential information comprises a list of parameters; the parameters being described in a tag lookup table (claims 14 and 22; claim 15 depends from claim 14).

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c. Wherein the auxiliary information comprises additional non-visual information regarding camera geometry and identification for the video frames (claim 24).

d. Wherein the auxiliary information comprises video processing information regarding descriptions and camera positions for the video frames (claim 25).

7. Claim 23 is allowed.

8. The following is an examiner's statement of reasons for allowance: Prior art fails to teach or fairly suggest an apparatus comprising: a state storage memory coupled to the collector to store the current state of the auxiliary information; a comparator to receive the auxiliary information and compare the stored current state of the auxiliary information with auxiliary information regarding a later current video frame of the sequence of video frames to determine differential information; and a tag lookup table defining settable parameters; an annotator to store the differential information using the settable parameters in the video bit stream by extending the original bit stream format only if the differential information indicates a change from the current state of the auxiliary information.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HEATHER R. JONES whose telephone number is

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(571)272-7368. The examiner can normally be reached on Mon. - Thurs.: 7:00 am - 4:30 pm, and every other Fri.: 7:00 am - 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Heather R Jones
Examiner
Art Unit 2621

HRJ
February 10, 2009

/Thai Tran/
Supervisory Patent Examiner, Art Unit 2621